

REMARKS

Claims 1-10 and 17-26 are pending in this application. Claims 1 and 19 are amended. Claims 11-16 are canceled. Applicant reserves the right to pursue original and other claims in this and other applications.

Claims 1-4, 17, and 22-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Published Patent App. No. 2003-0042499 ("Reiner") in view of U.S. Published Patent App. No. 2002-0000671 ("Zuniga"). Office Action of April 15, 2009 (hereinafter "Office Action"), at 2. The rejection is respectfully traversed.

Claim 1 recites a semiconductor apparatus, comprising:

- a semiconductor substrate;
- a metal wiring layer formed over the semiconductor substrate;
- a material layer formed over the metal wiring layer and having a window therein;
- a first electrode pad formed over the semiconductor substrate, and exposed through said window for providing contact between said semiconductor apparatus and external circuitry;
- a circuit formed over said semiconductor substrate and in a region under the window in the material layer exposing the first electrode pad, said circuit comprising an array of adjacent resistive elements formed of a semiconductor material, said first electrode pad being formed over said array of resistive elements such that said first electrode pad extends transversely across said array; and
- at least one additional unconnected outermost resistive element adjacent to and aligned in a pattern with said resistive elements of said array.

Applicant respectfully submits that the asserted combination of Reiner and Zuniga fails to teach or suggest all of the elements of claim 1. For example, the asserted combination fails to teach or suggest "at least one additional unconnected outermost resistive element adjacent to and aligned in a pattern with said resistive elements of said array." The advantages of this unconnected resistive element are described in the specification of the present application at paragraph 0073. To the contrary, the asserted "resistive elements" of Reiner's Figure 3 are "connected to one another in

such a way that one larger resistor is formed.” Reiner, at ¶ 0038. The asserted “resistive elements” of Zuniga’s Figures 5 and 6 are described merely as “passive resistors” and also fail to teach or suggest this element. Zuniga, at ¶ 0052.

Therefore, Applicant respectfully submits that the asserted combination fails to teach or suggest all of the elements of claim 1. Claims 2-4, 17, and 22-26 depend from claim 1, and are allowable over the asserted combination of Reiner and Zuniga for at least the reasons discussed above, as well as on their own merits. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claims 1-4, 17, and 22-26 be withdrawn, and the claims allowed.

Claims 5 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Reiner and Zuniga, further in view of U.S. Published Patent App. No. 2002-0145177 (“Takasu”). Office Action, at 5. The rejection is respectfully traversed. Claims 5 and 6 depend from claim 1, and are allowable over the asserted combination of Reiner and Zuniga for at least the reasons discussed above with regard to claim 1, as well as on their own merits. Takasu fails to remedy the deficiencies of Reiner and Zuniga, and is not cited as such. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claims 5 and 6 be withdrawn, and the claims allowed.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Reiner, Zuniga, and Takasu, further in view of U.S. Published Patent App. No. 2002-0063262 (“Matsuzaki”). Office Action, at 6. The rejection is respectfully traversed. Claim 7 depends from claim 5, and is allowable over the asserted combination of Reiner, Zuniga, and Takasu for at least the reasons discussed above with regard to claim 5, as well as on its own merits. Matsuzaki fails to remedy the deficiencies of Reiner, Zuniga, and Takasu, and is not cited as such. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claim 7 be withdrawn, and the claim allowed.

Claims 8-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Reiner, Zuniga, and Takasu, further in view of U.S. Patent No. 6,232,823 (“Tsuchida”). Office Action, at 7. The rejection is respectfully traversed. Claims 8-10 depend from claim 1, and are allowable over

the asserted combination of Reiner and Zuniga for at least the reasons discussed above with regard to claim 1, as well as on their own merits. Takasu and Tsuchida fail to remedy the deficiencies of Reiner and Zuniga, and are not cited as such. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claims 8-10 be withdrawn, and the claims allowed.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Reiner and Zuniga, further in view of U.S. Patent No. 5,107,313 ("Kohda"). Office Action, at 9. The rejection is respectfully traversed. Claim 18 depends from claim 4, and is allowable over the asserted combination of Reiner and Zuniga for at least the reasons discussed above, as well as on its own merits. Kohda fails to remedy the deficiencies of Reiner and Zuniga, and is not cited as such. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claim 18 be withdrawn, and the claim allowed.

Claims 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasu and Zuniga in view of Reiner. Office Action, at 10. The rejection is respectfully traversed.

Claim 19 recites a semiconductor apparatus comprising:

- a semiconductor substrate;

- an oxide film formed over the semiconductor substrate, the oxide film comprising a resistive-element formation region and a fuse-element formation region, the resistive-element formation region having a circuit comprising an array of strip-shaped resistive elements formed of a semiconductor material and at least one additional unconnected outermost resistive element adjacent to and aligned in a pattern with said resistive elements of said array;

- an insulating layer formed over the oxide film and having an electrode-pad formation region, wherein the electrode-pad formation region is formed over the resistive-element formation region, and wherein the electrode-pad formation region has an electrode pad comprising a metal layer providing contact between said semiconductor apparatus and external circuitry and wherein the electrode pad extends transversely across the array of strip-shaped resistive elements; and

a passivation film formed over an uppermost metal wiring layer of the semiconductor apparatus and having a window arranged to expose the electrode pad.

Applicant respectfully submits that the asserted combination of Takasu, Zuniga, and Reiner fails to teach or suggest all of the elements of claim 19. For example, the asserted combination fails to teach or suggest a “resistive-element formation region having a circuit comprising an array of strip-shaped resistive elements formed of a semiconductor material and at least one additional unconnected outermost resistive element adjacent to and aligned in a pattern with said resistive elements of said array.” The asserted “resistive elements” of Takasu’s Figure 1 are described merely as a “plurality of resistors” forming “a bleeder resistance.” Takasu, at ¶ 0061. Indeed, only a single resistor is shown in Takasu’s Figure 1. As discussed above with regard to claim 1, the asserted “resistive elements” in Reiner’s Figure 3 or Zuniga’s Figures 5 and 6 also fail to teach or suggest an unconnected outermost resistive element.

Therefore, Applicant respectfully submits that the asserted combination fails to teach or suggest all of the elements of claim 19. Claim 20 depends from claim 19, and is allowable over the asserted combination for at least the reasons discussed above, as well as on its own merits. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claims 19 and 20 be withdrawn, and the claims allowed.

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasu, Zuniga, and Reiner, further in view of Kohda. Office Action, at 12. The rejection is respectfully traversed. Claim 21 depends from claim 19, and is allowable over the asserted combination of Takasu, Zuniga, and Reiner for at least the reasons discussed above, as well as on its own merits. Kohda fails to remedy the deficiencies of Reiner and Zuniga, and is not cited as such. Accordingly, Applicant respectfully requests that the § 103(a) rejection of claim 21 be withdrawn, and the claim allowed.

Amendment After Final Office Action of April 15, 2009

In view of the above, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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